



# Building a Test Lab with VMware ESXi

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# What is Virtualization?

**YO DAWG, I HEARD YOU LIKE COMPUTERS**

**SO I PUT A COMPUTER IN YOUR COMPUTER  
SO YOU CAN COMPUTE WHILE YOU COMPUTE**

# Why Virtualize?

- Do more stuff with less hardware
- Easier snapshot/restore
- Easier templating/cloning
- Great for lab setups
- Easier to segment services



# Why ESXi?

- Widely used in enterprise environments
- Scales up easily
- Runs on bare metal
- Free\*

# ESXi Alternatives

- “Type 1” (Bare Metal) Hypervisors
  - Microsoft Hyper-V
  - Citrix XenServer
  - Proxmox
- “Type 2” (Hosted) Hypervisors
  - VMware Workstation
  - Oracle VirtualBox
  - QEMU

# What You Need: Hardware Specs

- ALL THE CORES
- ALL THE RAMS



- Enough disk storage for your VMs
  - Ideally, RAID 1 or RAID 10 capability
  - Controller support for large disks (>2.2 TB)

# What You DON'T Need

- Xeon processor
- ECC Memory
- Enterprise-class storage
- SSD storage
- A network card with over 9000 ports
- RAID 5 – no one needs RAID 5! ಠ\_ಠ
- Spinning rims

# What You DON'T Need

- None of these features are BAD (except for RAID 5), but they also aren't NECESSARY.
- The best machine is the one you can use. It doesn't have to be perfect, it just has to work.
- If you do decide to use SSD storage with ESXi, know what you're getting into!



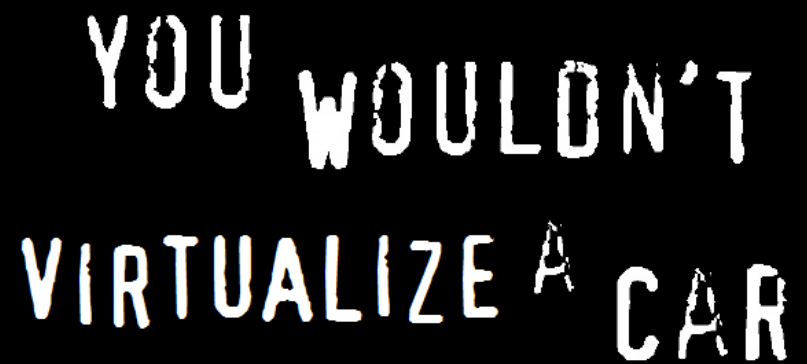
# ESXi Setup Demo

- Installation
- Booting to ESXi
- Using the web UI
- Creating a datastore
- Creating a VM



# To Virtualize or Not to Virtualize?

- Virtualization isn't always the answer
  - NAS, GPU processing, resource hogs
- Know your use case!



YOU WOULDN'T  
VIRTUALIZE A CAR

Q&A / Discussion